A Contribution to the Knowledge of the Flora of Nippon.

(Continued from p. 14.)

By Tomitarô Makino, Sc. D.

Glycine Max Merr. var. quinquefoliolata Makino, nov. var. Fig. 2. Leaves constantly 5-foliolate, long-petiolate; leaflets ovate; lateral ones slightly oblique in form, shortly petiolulate; odd one longish-petiolulate.

Nom. Nipp. Koba-mame, Koha-mame, Gankui, Sôji-mame. Hab. NIPPON, ravely cultivated (S. Nohara!).



Fig. 2. Glycine Max (L.) Merr. v.ir. quinquefoliolata Makino. (Photo by Shigeroku Nohara. Reduced.)

Tricyrtis hirta Hook. var. albescens Makino, nov. var.

Stem viridescent, purplish below. Pedicel green. Prianth white, each segment with a cross yellow blotch near base, very scantily and very loosely few-purple-spotted. Filament white, finely dispersed with minute purple dots; anther rosy. Ovary light green; style white.

Nom. Nipp. Shiro-hototogisu.

Hab. Prov. KAI: Yoshids, cultivated (T. Makino! 1930.).

Orchis aristata Fischer in litt. apud Lindley, Gen. and Spec. Orchid. Pl. (1840), p. 262.

Orchis latifolia γ. Beeringiana Chamiss. et Schlechtend. in Linnaea, III. p. 26.

Orchis Beeringiana Kudo, Fl. Is. Param. p. 94.

Orchis aristata f. punctata Tatewaki in Trans. Sapporo Nat. Hist. Soc. IX. (1927), p. 10,

Orchis aristata var. maculata Makino in Journ. Jap. Bot. VIII. n. 1 (1932), p. 6. Nom. Nipp. Udzuraba-hakusanchidori, Fuiri-hakusanchidori.

Hub. HOKKAIDÔ: Murakami Bay in Isl. Paramushir, Northern Kurile (Yoshikazu Окада! July 1931.).

var. immaculata Makino, nov. var.

Leaves free from spots.

Nom. Nipp. Hakusan-chidori.

Hab. NIPPON, common in the alpine regions.

When dried the dots of leaves soon quite disappear.

Skimmia repens NAKAI, a. typica MAKINO.

Skimmia repens Nakai in Bot. Mag., Tokyo, XLI. (1927), p. 505.

Nom. Nipp. Tsuru-miyamashikimi, Tsuru-shikimi.

H.b. NIPPON, mountains.

var. β. rugosa Makino, nov. var.

Leaves impressed on the veins in the upper su face.

Nom. Nipp. Uchikomi-tsurumiyamashikimi (nov.).

Hab. Prov. UGO (T. MAKINO!).

var. longifolia Makino, nov. var.

Leaves long, narrow-oblanceolate, about 10 cm. long.

Nom. Nipp. Nagaba-tsurumiyamashikimi (nov.).

Hab. Prov. IYO: Omogô (T. MAKINO!).

Kurauuhia brachybotris (Sieb. et Zucc.) α . violacea (Rehder) Makino. nov. comb.

Wistaria venusta var. violacea Rehder, Man. Cult. Trees a. Shrubs Hard. N. Amer. (1927), p. 504.

Wistaria brachybodrys Sieb. et Zucc. Fl. Jap. I. (1835), p. 92, tab. 45.
Milletia floribunda var. brachybotrys Matsum. in Bot. Mag., Tokyo, XVI.

(1902), p. 64, et Ind. Pl. Jap. II. 2 (1912), p. 270.

Kraunhia sinensis v.r. brachybotrys Makino in Bot. Mag, Tokyo, XXIV. (1910), p. 76.

Kraunhia floribunda var. brachybotrys Makino in Bot. Mag., Tokyo, XXV. (1911), p. 18.

Leaflets densely appressed-pubescent with pale silky hairs. Flowers violet. Nom. Nipp. *Yama-fudzi* (Hill Wistaria). *Hab.* NIPPON.

In the western Nippon, this species is commonly found growing in wild state on hills, having the beautiful violet flowers, and it is often in cultivation as a garden plant. It has the dextrorsely twining stem, whilst that of *K. floribunda* TAUB. (= Wistaria floribunda DC.) is sinistrorse.

var. B. alba (MILLAR) MAKINO, nov. comb.

Wis aria brachybotrys var. alba Millar in Bailey, Cycl. Am. Hort. p. 1989. (1902).

Kraunhia sinensis var. brachybotrys forma albiflora Makino in Bot. Mag., Tokyo, XXIV. (1910), p. 77.

Kraunhia floribunda var. brachybotrys forma albiflora Makino in Bot. Mag., Tokyo, XXV. (1911), p. 17.

Wistaria venusta Rehder et Wilson in Saegent, Pl. Wils. II. p. 514 (1916); Bailey, Stand. Cycl. Hort. p. 3518 (1917), et Man. Cult. Pl. (1924), p. 418; Bot. Mag. tab. 8811 (1919); Rehder, Man. Cult. Trees a. Shrubs Hard. N. Amer. (1927), p. 504.

Nom. Nipp. Shira-fudzi. Hab. NIPPON, gardens.

Vigna sinensis (L.) ENDL.

Vigna Catiang var. sinensis King.

Nom. Nipp. Sasage.

Hab. NIPPON, cultivated.

forma bicontorta (Durieu) Makino, nov. comb.

Dolichos bicontortus Durieu.

Vigna Catia g var. sinensis forma contorta Matsum.

Nom. Nipp. Megane-sasage.

Hab. NIPPON, cultivated, rare.

var. sesquipedalis (L.) Koern.

Vigna sesquipedalis W. F. Wight.

Nom. Nipp. Naga-sasage, Furô.

H. b. NIPPON, cultivated.

var. Catiang (L.) YATABE.

Dolichos Catiang (BURM.) L.

Vigna Caliany WALP.

Nom. Nipp. Hata-sasage, Hatake-sasage, Dzi-sasage.

Hab. NIPPON, cultivated.

forma dichrosperma Makino.

Nom. Nipp. Yakko-sasage. Hab. NIPPON, cultivated.

Asarum Kurokawanum Makino, nov. sp.

Perennial, sempervirent, glabrous, the epigaeous portions quite green. Roots thickly fibrous, dense, numerous, terete, smooth, pale, loosely with rootlets towards the extremities, attaining about 24cm. long, aromatic. Rhizome shortly repent, scantily ramose, thick, closely nodifications, rooting. Leaves alternate, 1 to 4 to a branch of rhizome, long-petiolate; blade rounded or subpandulato-rounded, $3\frac{1}{2}$ - $8\frac{1}{4}$ cm. long, $4-7\frac{1}{2}$ cm. wide, thickish, deep-green and immaculated or albescent-maculate along the venation also glabcous but puberulent towards the subciliated entire margin above, light green or shining and quite glabrous beneath, auricled with a deep and subclose sinus and 2 lobes below, deltoidly decurrent to the top of petiole at the base; midrib prominent beneath and impressed above; veins 2 on each side and radiating from the base, the upper one larger and arcuate inwards, slightly prominent beneath and narrowly prominent above; veinlets loosely reticulated; petiole elongate, subterete, canaliculated in front, glabrous but thinly pubescent at both edges of the canal, green, $4\frac{1}{2}-8\frac{1}{2}$ cm. long, shortly dilated and semiamplexical at the base. Bracts under the flower usually 2 or 3, sessile, ample, rounded, membranaceous, ciliated on margin, light green, reticulatedly nervate with green veins and veinlets, attaining about 13cm. long, sometimes small thicker and green in the outer one. Flower shortly pedicellate, glabrous, light green; limb 17-23mm. across, deeply 3-parted, spreading, thick; segments ovato-deltoid, obtuse or subacutish at the apex, entire, obscurely 5-nerved, 7-10 mm. long, 9-10 mm. wide, rude and often hardly impsessed on the veins longitudinally on the face internally, smooth and sometimes longitudinally slight-impressed on the veins externally; throat open, narrowly annulate with an uneven edge, about 7 mm. across in the orifice; tube short, short-poculiform, depressedrounded at the base, smooth and very obscurely impressed longitudinally on the veins externally, 5-9 mm. long, about 9 mm. across, often pale-greenish, thick, scalariformly elevato-reticulated with loose pits; pedicel stout, terete, smooth, glabrous, greenish, 3-4mm. long. Stamens 12, small, $1\frac{1}{2}-2$ mm. long, inserted on all sides of the top of ovary, the style-opposite 6 shorter; filament short, erect, compressed anteroposteriorly, smooth, glabrous, greenish, about 1 mm. long; anther extrorse, nearly 1-11 mm. long, umber-coloured, with white pollen; anther-cells linear, parallel or slightly divergent below; connective continued to the filament, slightly exserted upon the anther, subulato-linear, retuse or subbifid at the apex, pale-greenish. Styles 6, much exserted upon the stamens, erect, about 3 mm. long, shortly connate at the base, greenish, smooth, thick, subulate and attenuatedly tapering towards the bifid apex, slightly canaliculated longitudinally in the back; stigma dorsal, minute, ovate, pale, minutely papillose. Ovary superior, shortly conical, 6-celled; ovules many, 2-serial in the each cell.

Nom. Nipp. Ao-kan-aoi (nov.).

Hab. Prov. IGA: Uyeno, in garden (T. Kurokawa!).

This species is quite green in the rhizome, leaves and flower without the trace of purple. I have named this new species in honour of Mr. Takao Kurokawa, who has an interest on Asarum.

Brassica campestris L. subsp. Napus (L.) Hook. fil. et Anders. in Hook. fil. Fl. Brit. Ind. I. p. 156 (1872), var. nippo-oleifera Makino in Journ. Jap. Bot. VIII. p. 10 (1932).

forma spontanea Makino, nov. f.

Biennial; tap-root slender, perpendicularly decending, terete and tapering towards the end, smooth, solid, hard, white, scantily ramose with main branches towards the base, with short fine rootlets. Radical leaves resulate, spreading, sessile, semi-amplexical at the base, lyrato-pinnate or pinnatiparted, green or sometimes more or less purpurascent on the upper surface, glaucous or sometimes slightly purpuraceous beneath, hispid with patent and stiffish hairs on both surfaces (hairs on the upper surface having the elevated base), but gradually becoming glabrous in the superior leaves, thickish in texture, irregularly crenato-dentate and ciliated on margin, sub-prominently veined and impressedly venuled above and loosely reticulated with the loosely rinnate prominent veins and anastomotic venules beneath; the terminal lobe rounded or semi-orbicular and shallowly lobate, rounded usually with a sub-emarginate tip at the apex; the lateral lobes or leaflets patent or deflexed, ovate, crenatodentate; the cauline leaves broadly amplexicall with auriculate bases at the base and not pinnate or usually non pinnatifid and cuneately obovate, coarsely crenato-dentate and ciliated on margin, thinly hispid with elevated base above, thinly hispid on the venation beneath, the superior ones gradually decrescent in size and ovato-lanceolate; midrib slender, thick, prominent beneath, canaliculate below and prominent above on the upper surface, green or slightly purpurascent, thinly hispid but glabrous in the superior ones. Stem erect, terete and slightly striate above, glaucous-green, often more or less purpurascent, thinly hispid with patent white hairs, loosely ramose above with the erectpatent branches. Raceme long; rachis slender, terete, hardly angulate, glaucousgreen, scantily hispid or glabrous. Flowers yellow, about 18-20 mm. across. Sepals erect-patent, narrow-lanceolate, viridescent, glabrous, about 7 mm. long Petals orbicular, 8-9 mm. long; claw cuneate, shorter than the limb. Stamens much exserted but the shorter 2 hardly so. Style equal to the longer stamens in height.

Nom. Nipp. Nora-natane (nov. nom.).

Hab. MUTSU: Isl. Kabu-shima (T. Makino!, J. Koikawa!).

This is found growing wild in the above-mentioned Isle.

(To be continued.)